

REMARKS

Applicants respectfully request consideration of the present U.S. Patent application as amended herein. Claims 15, 18, 19, 23 and 24 have been amended. No claims have been added. Thus, claims 15, 16, 18, 19 and 21-24 are pending.

Claim Rejections – 35 U.S.C. § 112

Claims 18, 19, 23, and 24 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The changes suggested in the Office Action have been made in this amendment. Therefore, Applicants request that the objections to claims 18, 19, 23, and 24 be withdrawn.

Claim Rejections - 35 U.S.C. § 103

Claims 15, 16, 18, 19, and 21-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,675,364 issued to Stedman et al. (*Stedman*) in view of U.S. Patent No. 5,455,561 issued to Brown (*Brown*) further in view of U.S. Patent No. 5,731,832 issued to Ng (*Ng*). For at least the reasons set forth below, Applicants submit that claims 15, 16, 18, 19 and 21-24 are not rendered obvious by *Stedman*, *Brown* and *Ng*.

Claim 15 recites the following:

a memory to store a weighted average of brightness corresponding to one or more frames representing a view at different times; and
a processor coupled to the memory to compare the property of two frames to each other and to cause the computer system to exit the inactive mode in response to the weighted average of brightness of the two frames differing by a predetermined amount.

Thus, Applicants claim causing an computer system to exit an inactive mode in response to detecting motion by comparing two video frames.

In general, a computer system is used by a user or as part of a larger system in which the computer system receives inputs and operates on those inputs. As an energy saving feature, many computer systems enter an inactive (e.g., sleep, low power) state when the computer system does not receive input for a predetermined period of time. For example, if a user does not provide the computer system with any input via a keyboard or cursor control device for five minutes, the computer system enters a sleep state. The computer remains in the sleep state until the user provides some input to the computer system. However, during normal operation, the computer system is not in the sleep state.

Stedman discloses a computer system which provides a wakeup control function.

For example, *Stedman* recites the following:

“After entering the system power saving mode of operation, computer 10 system remains in the system power saving mode of operation until a wakeup signal is generated by I/O controller 40. More specifically, when I/O controller 40 receives an indication of action from either keyboard or mouse 78, I/O controller then generates the wakeup signal which signals system processor 12 to wake up ...”

See col. 4 lines 37-43. *Stedman* does not teach or suggest causing the computer system to wake up in response to detecting motion by comparing two video frames.

Ng discloses comparing two video frames to determine motion. See col. 4, line 64 to col. 5, line 7. The system disclosed by *Ng* compares video frames during normal operation. See col. 3, lines 55-65. *Ng* does not suggest comparing video frames while a system is in an inactive mode. Therefore, *Ng* does not disclose causing an apparatus to exit an inactive mode in response to detecting motion by comparing two video frames.

Brown discloses using a camera to monitor a scene during periods of inactivity.

See col. 4, lines 5-6. However, *Brown* does not disclose causing an apparatus to exit an

inactive mode when a difference is detected. When *Brown* detects a difference the apparatus enters another stage of processing rather than exiting the inactive mode. Therefore, *Brown* does not disclose causing an apparatus to exit an inactive mode in response to detecting motion by comparing two video frames.

Because neither *Stedman*, *Ng* nor *Brown* teach or suggest monitoring a scene while a computer system is in a state of inactivity and causing the computer system to exit the inactive state in response to detecting motion, no combination of *Stedman*, *Ng* and *Brown* teaches or suggests the invention as claimed in claim 15.

Claims 16, 18, 19 and 21 depend from claim 15. Because dependent claims include the limitations of the claims from which they depend, Applicants submit that claims 16, 18, 19 and 21 are not rendered obvious by *Stedman*, *Ng* and *Brown* for at least the reasons set forth above.

Claim 22 recites the following:

- receiving a first frame corresponding to a view at a first time while in the inactive mode;
- determining a weighted average brightness for the first frame;
- receiving a second frame corresponding to a view at a second time while in the inactive mode;
- determining a weighted average brightness for the second frame; and
- causing the computer system to exit the inactive mode if the weighted average brightness for the first frame differs from the weighted average brightness for the second frame by a predetermined amount.

Thus, Applicants claim receiving and comparing frames while the computer system is in the inactive mode.

As mentioned above, neither *Stedman*, *Ng* nor *Brown* teach or suggest monitoring a scene while a computer system is in a state of inactivity and causing the computer system to exit the inactive state in response to detecting motion. Therefore, no

combination of *Stedman, Ng* and *Brown* teaches or suggests the invention as claimed in claim 22.

Claims 23 and 24 depend from claim 22. Because dependent claims include the limitations of the claims from which they depend, Applicants submit that claims 23 and 24 are not rendered obvious by *Stedman, Ng* and *Brown* for at least the reasons set forth above.

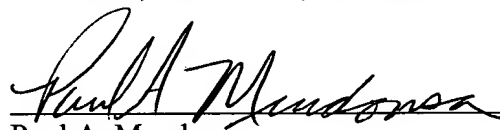
Conclusion

For at least the foregoing reasons, Applicants submit that the rejections have been overcome. Therefore, claims 15, 16, 18, 19 and 21-24 are in condition for allowance and such action is earnestly solicited. The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,
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MARKED-UP AMENDED CLAIMS

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IN THE CLAIMS

15. (Amended) A computer system that operates in a active mode and enters an inactive mode in response to a predetermined period of inactivity, the computer system comprising:

a memory to store a weighted average of brightness corresponding to one or more frames representing a view at different times; and

a processor coupled to the memory to compare the [property] weighted average of brightness of two frames to each other and to cause the computer system to exit the inactive mode in response to the weighted average of brightness of the two frames differing by a predetermined amount.

18. (Amended) The computer system of claim 16, wherein the processor receives frames at a first frame rate when the computer system is in the inactive mode and the processor receives frames at a second frame rate when the [electronic device] computer system is not in the inactive mode.

19. (Amended) The computer system of claim 16, wherein the processor determines the frame property when the computer system is in the inactive mode and does not determine the frame property when the [electronic device] computer system not in the inactive mode.

23. (Amended) The method of claim 22 wherein determining the [property] weighted average brightness is performed by a processor internal to a video camera coupled to the computer system.

24. (Amended) The method of claim 22, wherein frames are received at a first frame rate when the computer system is not in the inactive mode and at a second frame rate when the [electronic device] computer system is in the inactive mode.